Kentucky

Agricultural Experiment Station

University of Kentucky

THE MARKETING OF TOBACCO

BULLETIN NO. 287

Lexington, Ky.
October, 1928

EXPERIMENT STATION STAFF

BOARD OF CONTROL

Richard C. Stoll, Chairman, Lexington, Ky.
H. M. Froman, Lexington, Ky.
R. G. Gordon, Louisville, Ky,
J. B. Andrews, Newport, Ky.
James Park, Lexington, Ky.

Frank L. McVey, President — Thomas P. Cooper, Dean and Director

ADMINISTRATION

T. P. Cooper, Director
D. H. Peak, Business Agent
O. L. Ginocchio, Secretary

AGRONOMY

George Roberts, Head
E. J. Kinney, Assoc. Agronomist
P. E. Karraker, Asst. Agronomist
J. F. Freeman, Asst. Agronomist
W. D. Valleau, Plant Pathologist
E. N. Fergus, Asst. Agronomist
J. B. Kelley, Agricultural Engineer
E. M. Johnson, Asst. Plant Pathologist

ANIMAL HUSBANDRY GROUP

E. S. Good, Chairman
W. S. Anderson, Horses
E. J. Wilford, Swine, Meats
W. J. Harris, Beef Cattle
J. Holmes Martin, Poultry
Fordyce Ely, Dairy Husbandry
J. W. Nutter, Dairyman
W. C. Eskew, Cream Grading
George Insko, Cream Grading
Amanda Harms, Asst. Path. Bact.
G. D. Buckner, Animal Nutrition
W. M. Insko, Animal Nutrition
Harold Barber, Head Herdsman

ANIMAL PATHOLOGY

W. W. Dimock, Head
Philip R. Edwards, Bacteriologist
F. E. Hull, Asst. Veterinarian

CHEMISTRY

J. S. McHargue, Acting Head
A. M. Peter, Chemist
S. D. Averitt, Chemist
O. M. Shedd, Chemist
W. R. Roy, Asst. Chemist
D. J. Healy, Bacteriologist

CREAMERY LICENSE SECTION

J. D. Foster, Inspector, in Charge
N. J. Howard, Inspector

ENTOMOLOGY AND BOTANY

H. Garman, Head
Mary L. Didlake, Asst. Entomologist
H. H. Jewett, Research Asst. Entgst.
Jessie Terry, Seed Analyst
Lucille Dobbins, Seed Analyst
Eugene Simpson, Inspector

FARM ECONOMICS

W. D. Nicholls, Head
W. G. Finn, Farm Management
W. L. Rouse, Farm Management
R. E. Proctor, Farm Management
Z. L. Galloway, Farm Organization
Merton Oyler, Rural Life Studies

FEED CONTROL

J. D. Turner, Head
H. D. Spears, Chemist
W. G. Terrell, Inspector
Fred Fitschen, Inspector
L. V. Amburgey, Microscopist

FERTILIZER CONTROL

H. E. Curtis, Head
Harry Allen, Chemist
Lelah Gault, Asst. Chemist
Robert Mathews, Inspector

HOME ECONOMICS

Mariel Hopkins, Head
Statie Erikson, Asst.

HORTICULTURE

A. J. Olney, Acting Head
E. M. Emmert, Assistant
C. S. Waltman, Asst.

MARKETS AND RURAL FINANCE

Dana G. Card, Marketing
E. C. Johnson, Marketing
C. D. Phillips, Marketing

PUBLIC SERVICE LABORATORY

L. A. Brown, Head
A. L. Meader, Asst. Chemist
James H. Martin, Asst. Chemist
E. K. Borman, Bacteriologist
W. B. Hamilton, Asst. Bacteriologist

ROBINSON SUBSTATION

(Quicksand, Ky.)

R. W. Jones, Superintendent
C. H. Burrage, Forester
Lula Hale, Field Worker

WESTERN KY. SUBSTATION

(Princeton, Ky.)

S. J. Lowry, Superintendent
L. M. Caldwell, Asst.

BULLETIN NO. 287

The Marketing of Tobacco.

By O. B. JESNESS.*

Tobacco falls into a number of different types, each having certain characteristics, producing areas, uses and outlets. There is more or less competition between the various types, and problems arising in the marketing of tobacco leaf are influenced by type, consequently a brief consideration of the classification of tobacco is included as a background for the discussion of marketing which is to follow.

The classification customarily employed first separates tobacco leaf grown in the United States into two main groups, one made up of manufacturing and export types; the other, of cigar types. The first consists of those types which are used primarily for cigarette, chewing and smoking tobacco and snuff, at home and abroad. The second group, as the name indicates, consists of types used mainly in cigar manufacture. The manufacturing and export tobaccos are grown for the most part in Southern States. They include the burley type which is grown mainly in Central Kentucky and to some extent in Southern Ohio and Indiana, West Virginia, Tennessee, Missouri and North Carolina. The dark types grown in Western Kentucky, Tennessee, and to some extent in Southern Indiana, including the Clarksville and Hopkinsville dark-fired, the Paducah dark-fired, the Henderson or Stemming, the Green River and the one sucker types, belong in this group. Dark-fired also is grown in Virginia. Another very important type in the manufacturing and export group is the bright, or flue-cured, type which is grown in the Carolinas, Virginia and Georgia. Other types included are the Virginia sun-cured, the Maryland and the Eastern Ohio Export type. Table I shows the estimated production of these various types for a five-year period, indicating the relative importance of each type and their geographical distribution.

*Resigned.

From this table it will be noted that the manufacturing and export group makes up a large proportion of the total production, cigar leaf being of less importance. Among the types included in the manufacturing and export groups, flue-cured, burley and dark-fired are of leading importance.

The characteristics of the different types vary and as a consequence they are suited to different uses. This affects the market outlets and methods. Some types are used almost entirely by domestic manufacturers while others rely mainly on foreign outlets. Some types are suited especially for cigarettes, others are used for chewing or snuff. There are therefore varying degrees of competition among the different types. Burley tobacco is almost entirely a domestic tobacco, exports of burley leaf furnishing an outlet for only a small percentage of the total crop. Domestic manufacturers use practically all of it for smoking and chewing tobacco and for cigarettes. The dark-fired tobacco, on the other hand, finds its outlets mainly in foreign countries, the principal domestic use being for snuff. The bright, flue-cured is used largely in cigarette and smoking manufacture but, unlike burley, markets outside the United States take a considerable proportion of the crop.

Under the circumstances, changes in habits of consumption and in international trade have different effects on different types. The increase in demand for cigarettes creates demand for additional cigarette tobacco. Flue-cured and, to some extent, burley are benefited. The lessened demand for plug tobacco, on the other hand, means reduced requirements for those grades of burley leaf and other types used for chewing. World conditions are much more significant in the market for dark fire-cured tobacco than for burley.

The distribution of tobacco growing thruout the world is indicated in Table II.

TABLE II. Tobacco Production of Specified Countries*

Country	Average 1909-13[1] 1,000 lbs	1924 1,000 lbs	1925 1,000 lbs	1926 1,000 lbs	1927 (Prel.) 1,000 lbs
United States	996,087	1,251,343	1,376,628	1,297,889	1,237,832
Canada	[2]15,066	18,711	29,266	28,824	43,917
Dominican Republic	[3]25,417	[4]29,000	[4]45,000	[4]17,500	[4]35,000
Porto Rico	[5]10,828	28,000	23,403	35,000	46,664
Belgium	20,767	15,031	16,925	13,153	13,492
Italy	22,964	91,105	92,373	97,789	[4]88,000
Germany	64,116	47,452	41,902	31,769	[4]41,226
Czechoslovakia	9,467	12,720	15,160	14,532	15,653
Hungary	111,883	38,045	37,687	57,266	[4]60,626
Yugoslavia	31,920	78,671	26,590	31,863	[4]11,000
Greece	[5]58,987	75,469	129,243	124,562	114,145
Bulgaria	23,435	108,447	88,115	59,942	34,811
Rumania	[6]48,174	47,290	36,089	40,307	[4]40,000
Poland	8,725	1,397	1,875	5,129	[4]8,800
Russia	230,142	202,229	390,014	386,472	348,552
Algeria	23,097	38,578	65,655	27,183	20,018
Tunis	266	856	1,212	863	772
Turkey	[4], [5]88,180	[4]170,000	[4]104,500	[4]84,000	[4]95,000
Persia[7]	.....	[8]23,000	[8]23,000	[4]25,000	[4]26,500
Syria and Lebanon	[5], [9]360	6,475	6,239	5,114	2,800
Japan	93,717	140,567	143,425	132,278	147,986
Mauritius[7]	26	.....	.....	.....	992
Sumatra (East Coast)	46,278	[4]36,617	[4]37,735	[4]38,504	[4]39,683
Total 21 countries reporting all years shown	1,929,876	2,438,001	2,709,036	2,529,939	2,445,977
Estimated world total excluding India and China[10]	2,671,000	3,401,000	3,579,000	3,415,000	.....

Official sources except as otherwise noted.

[1] Averages for European countries are estimates for territory within present boundaries. [2] Two-year average. [3] Three-year average. [4] Unofficial estimate. [5] One year only. [6] Four-year average. [7] Not included in the total. [8] Rough unofficial estimate of annual production. [9] Greater Lebanon only. [10] No reliable data are available on production in India and China. The acreage devoted to tobacco in India would indicate a production next to that of the United States in the size of the crop. China is also of considerable importance.

*From Mimeographed Report, Bureau of Agricultural Economics, U. S. D. A., April 12, 1928. "Foreign News on Tobacco."

The wide distribution of tobacco culture thruout the world does not signify that so many countries produce their own requirements that international trade in leaf tobacco is insignificant. The type of leaf produced in different sections varies and

there frequently is an interchange even among important producing countries. As an illustration, the United States imports some tobacco leaf, especially for cigar manufacture and for blends in cigarette and smoking mixture, even tho it is an important exporter. In addition to the United States, Brazil, Cuba, Porto Rico, the Dutch East Indies and the Philippine Islands are important in the production of cigar leaf. Greece, Turkey, Russia, China, Bulgaria and Japan are among the cigarette leaf producers outside the United States.

Among the continents, North America supplies about one-half of the world's exports of tobacco leaf. Asia supplies over one-fourth. Next comes Europe with about one-tenth, and then South America. Africa is of little importance as an exporter. The United States is the leading exporting nation. Other important exporting countries include Brazil, Greece, Bulgaria, Cuba, the Dominican Republic, China, the Philippine Islands and Algeria. European countries such as the United Kingdom, Germany, the Netherlands, France and Belgium are among the leading importers.

Table III gives the exports of various types of leaf from the United States during recent years.

TABLE III. Exports of Tobacco Leaf from the United States.*

Type	1924	1925	1926	1927
Bright flue-cured	265,514,767	278,279,373	287,334,440	302,372,013
Dark-fired of Ky. and Tennessee	170,228,088	116,973,788	119,847,307	112,007,874
Dark-fired of Virginia	31,070,542	20,343,326	18,389,768	24,302,331
Green River and One Sucker**	16,085,428	17,970,631	14,076,039	19,199,103
Maryland and Ohio Export	12,830,531	13,912,752	13,591,697	20,035,935
Burley	7,397,988	6,016,895	6,729,234	17,854,175
Other, including cigar leaf	43,428,072	14,974,233	18,804,206	10,463,451
Total	546,555,416	468,470,998	478,772,691	506,234,882

*Data from Bureau of Foreign and Domestic Commerce.
**Green River and One Sucker were reported separately for 1927, the exports being 12,829,215 lbs. and 6,369,888 lbs. respectively.

Comparing this table with Table I, shows the relative importance of export outlets for different types of leaf.

The amounts of tobacco exported from the United States in 1927 to some of the more important purchasers of tobacco from this country are shown in Table IV. This table also shows the amounts exported to these countries of the types grown in Kentucky and of bright, flue-cured tobacco. It should be appreciated that there are decided variations in amounts taken by some countries from year to year. Spain, which took less than a million and a half pounds in 1926 and nearly twenty-one million pounds in 1927, is an example. The trade with most countries, however, is on a more constant basis.

As shown by the figures in Table IV, the United Kingdom and China are the largest buyers of United States tobacco. Flue-cured is the leader among the types exported and these two countries are large users of this type of leaf. The main outlets for dark-fired leaf are among such countries as France, Belgium, Germany, the United Kingdom and the Netherlands. Spain, as mentioned above, is a large buyer during some years. Italy formerly was an important buyer of this type, but took less than 400,000 pounds in 1928.

The United Kingdom is the leading importer of Green River tobacco, France being second. British West Africa, Poland and Belgium took the lead in the case of one sucker. The exports of burley in 1927 were larger than during previous years, Belgium taking about one-third of the total and other leading countries being the Netherlands, China and Portugal.

The volume of exports has been compiled according to types only during recent years. The period covered is too short for the drawing of very many definite conclusions as to trends. The dark-fired types have been faced with a decreased export demand during this period. As indicated by the figures in Table II, some of the European countries that have been important buyers of dark-fired tobacco have increased home production very materially. Italy is an outstanding case. Its average production during the five years immediately preceding the world war was only about 23 million pounds, while in recent years the

TABLE IV. Total Exports of Leaf Tobacco and Exports of Certain Types from the United States to Important Countries in 1927.[1]

Country	Total	Ky and Tenn. Dark-fired	Green River	One Sucker	Burley	Flue-Cured
Belgium	26,159,213	13,956,377	899,535	1,588,029	5,696,632	1,624,512
Denmark and Faroe Is.	5,928,376	1,735,482	42,900	988	536,966	2,863,202
France	38,081,980	20,768,711	2,059,475	21,625	228,814	396,364
Germany	31,387,130	10,027,266	72,522	11,942	1,617,978	12,808,522
Netherlands	27,409,433	8,038,511	123,428	19,160	3,258,503	7,188,886
Poland and Danzig	10,036,060	2,843,799	658,270	1,711,239	.....	4,739,423
Portugal	6,177,368	2,531,231	82,130	.....	2,362,065	180,271
Spain	20,828,553	19,423,169	1,389,815	.....	.....	.....
United Kingdom	182,542,295	9,148,735	4,615,342	17,741	431,082	166,655,215
China	51,305,795	572,350	1,024,900	.....	2,504,323	45,383,404
Java and Madura	9,222,901	.....	.....	.....	.....	9,222,901
Japan, incl. Chosen	9,995,764	.....	.....	.....	.....	9,990,994
Australia	19,812,084	46,104	.....	56,699	125,335	17,246,676
British West Africa	9,819,263	5,425,356	1,347,342	2,086,943	10,495	297,493

[1] Data from U. S. Department of Commerce. Mimeographed Circular, "Tobacco Markets and Conditions Abroad," Number 137, February 21, 1928.

production has been over 90 million pounds. Part of the reduction in the export demand for dark-fired tobacco is explained by a shift in consumption from heavier-bodied leaf to lighter tobaccos. As an indication of this, the flue-cured type has been showing a tendency towards increased export demand during a period when exports of dark-fired have decreased.

The increasing interest in tobacco growing in Canada has received some attention on the part of Kentucky tobacco growers, especially among growers in West Kentucky. There are heavy import duties on tobacco brought into Great Britain and a preference of about two shillings a pound (approximately fifty cents) is given to Empire-grown tobacco. This means that tobacco from Canada and other British colonies has considerable advantage over exports from the United States in competition for the British market. Since this preference went into effect in 1918, there has been a gradual increase in the imports of Empire-grown tobacco into Great Britain, this increase replacing tobaccos from the United States. About a million and a half pounds, or a little less than one per cent of the consumption in Great Britain in 1919 consisted of Empire-grown tobacco. Nearly twenty million pounds, or about twelve and a half percent, consisted of such tobacco in 1926.[1]

TOBACCO AS A SOURCE OF PUBLIC REVENUE.

Tobacco occupies a singular position among farm products in the role which it plays as a provider of public revenue. Governments employ various means of obtaining revenue from tobacco. The United States levies internal revenue taxes upon tobacco and a number of states collect state taxes of a similar nature. Such taxation is employed in some other countries, while still others employ government monopolization to achieve the same end.

The United States first adopted the policy of levying internal revenue taxes on tobacco in 1862 in connection with the meeting of the expenses arising from the war between the states.

[1] See "Tobacco Markets and Conditions Abroad." Mimeographed Circular, Department of Commerce, Number 131, January 10, 1928.

The policy has been followed consistently since that time, altho the rates have been changed from time to time. Table V shows the sources of internal revenue for several recent years, indicating the prominent position which tobacco products now occupy. As these figures show, tobacco products take second place only to the income and profits taxes as a provider of federal revenue.

TABLE V. Yields of Internal Revenue Taxes.*

Sources	1927	1926	1925
Distilled spirits, including wines, cordials, etc.	$21,194,668.71	$26,436,334.44	$25,902,820.28
Fermented liquors	883.25	15,694.19	1,954.44
Tobacco manufactures	376,170,205.04	370,666,438.87	345,247,210.96
Oleomargarine, process butter, etc.	3,185,297.13	3,092,540.42	3,064,155.39
Estate and gift tax	100,339,851.96	119,216,374.82	108,939,895.52
Corporation capital stock and other special taxes	8,978,197.65	101,932,733.82	95,814,152.60
Excise taxes, including tax on automobiles, etc	66,829,031.21	150,198,165.88	140,852,097.72
Admissions to theaters, etc., and club dues	28,376,657.48	34,054,515.05	39,598,397.44
Stamp taxes, including playing cards	37,345,551.43	54,014,239.36	49,251,784.18
Miscellaneous, including prohibition and narcotic taxes	3,310,342.33	2,268,714.01	13,808,750.20
Total receipts from miscellaneous taxes	645,730,686.19	861,895,750.86	822,481,218.73
Income and profits taxes	2,219,952,443.72	1,974,104,141.33	1,761,659,049.51
Total receipts (all sources)	2,865,683,129.91	2,835,999,892.19	2,584,140,268,24

*Annual Report of the Commissioner of Internal Revenue, Fiscal Year ended June 30, 1927.

The federal government collects a larger amount in internal revenue taxes on tobacco products than the usual farm value of the entire tobacco crop. The estimated farm value of the tobacco

crop of 1927 was 266 million dollars. The internal revenue taxes paid on tobacco products for the fiscal year 1927 amounted to 376 million dollars. The present rate of taxation on cigarettes is three dollars a thousand. A pound of leaf at this rate provides a revenue of approximately a dollar, a sum considerably in excess of that customarily paid growers for the leaf.

A number of states recently have adopted special taxes on tobacco to provide state revenue. Iowa started this movement in 1921 by passing a law levying a sales tax on cigarettes and cigarette papers. Other states having similar taxes include Arkansas, Georgia, Kansas, Louisiana, North Dakota, South Carolina, South Dakota, Tennessee and Utah. The tax in Iowa, Kansas, South Dakota and Utah, applies only to cigarettes, cigarette papers and tubes. Arkansas and Georgia include both cigars and cigarettes. North Dakota taxes cigarettes and snuff. Louisiana, South Carolina and Tennessee apply the tax to smoking and chewing tobacco and snuff, as well as to cigars and cigarettes. North Carolina levies a special tax on sales warehouses.

The customary method of collecting the state sales taxes is similar to that employed for the federal tax, that is, by requiring the affixing of revenue stamps to the packages. There is this difference, however, that while the federal government can collect thru the manufacturer, the states necessarily must use retailers as the collecting agencies. The rates and bases in force in the various states differ somewhat. Some employ a tax per unit and others levy a percentage of the retail price. Table VI indicates the amount of tax collected by the various states during a recent year.

Several states specify the uses to which the income derived from tobacco taxes shall be put. Arkansas places it in the common school fund. In Georgia it is applied to the payment of pensions to Confederate soldiers and their widows. Louisiana turns it into the common school fund. South Dakota devotes a large share of the income as a special building fund for state educational institutions. Tennessee uses it for school support.

TABLE VI. Revenue from Special State Taxes on Tobacco for a Recent Fiscal Year.[1]

State	Amount
Arkansas	$787,012.27
Georgia	868,742.77
Iowa	1,098,781.38
Kansas	658,122.50
Louisiana	1,185,937.65
North Carolina[2]	147,794.60
North Dakota	300,295.22
South Carolina	1,301,340.00[3]
South Dakota	298,091.28
Tennessee	1,256,558.75
Utah	127,714.92

[1] Several of these figures apply to the calendar year 1927. Others apply to fiscal years of varying dates.
[2] A tax on warehouses, not a sales tax on tobacco products.
[3] Partly estimated. Stamp tax includes ammunition and playing cards as well as tobacco products. Of the total revenue of $1,501,340, the License Tax Division estimates that $200,000 came from other sources than tobacco.

One consideration of importance in connection with any tax is its incidence. The taxes on tobacco products are in the nature of sales or consumption taxes and legislative bodies adopting them expect that the manufacturer or dealer will shift them to the consumer. The completeness with which such a shift takes place depends upon several considerations. To have perfect shifting possible in the case of tobacco taxes, such taxes must not curtail or change consumption, they must be on such a basis and at such rates that they can be charged directly to the consumer, and the possibility must not exist for the consumer to evade the tax by purchasing his supplies in another jurisdiction where there is no tax or where the rates are lower.

If consumption is not to be curtailed by the higher price resulting from the imposition of the tax, the demand would have to be inelastic. It is unquestionably true that the demand for tobacco products is relatively less elastic than that for many other products. The use of tobacco is a matter of habit. Purchases ordinarily are made in small units so the tax item does not loom large. However, persons in the trade and growers of leaf evidently do not regard the demand as being so inelastic

that the matter of taxes need cause them no concern. Thus cigar-leaf producers, cigar makers and dealers worked for a lowering of federal tax rates on cigars because they felt that existing rates were factors in curtailing cigar consumption. Cigars tend to be regarded more in the luxury class and probably are more sensitive to price increases, but the opposition of the tobacco industry to state taxes on cigarettes indicates that taxation is not held to be without effect. A proposal for a state sales tax on tobacco products in Kentucky met with opposition from the organized growers for this reason.

If the tax is applied at such a rate that it would result in fractional cents in the retail price of the units of sale, perfect shifting is not feasible. A tax of ten percent on a package which ordinarily retails at fifteen cents would mean that the dealer would either sell at sixteen cents, thereby assuming a half-cent of the one and a half cent tax, or at seventeen cents, thereby profiting a half cent. Even where the tax is specific, the exact amount of the tax need not be added. Thus a four-cent tax on a fifteen-cent package may lead some retailers to charge twenty instead of nineteen cents. Others may absorb all or part of the tax.

Another question is that of evasion. Federal revenue taxes are collected from the manufacturer and as they apply to the entire country the consumer has no place of purchase where he can avoid paying the tax, but with state taxes the avenue of possible purchase in states where there is on taxation or where rates are lower is left open. Because the outlay for tobacco is not regarded of major importance by the consumer, it is probable that comparatively few employ this method to avoid taxes. A representative of one of the large manufacturers, however, expressed an opinion that this has been done to the extent that its effect has been reflected in the sales figures. State taxes have to be collected from retailers, so more collection points are involved, and this probably results in some evasion. The extent of evasion is not susceptible of exact determination. Estimates obtained from state officials in several states having such taxes ranged from some which placed collections at 95 percent of the

amount due, to some which expressed the opinion that evasions were considerable. One of the latter said collections on cigarettes probably were 60 percent, and those on cigars 45 percent of the amounts due. Evasion is more difficult in the case of cigarettes because they are sold in the package to which stamps must be attached.

Several countries instead of levying special taxes on tobacco products, have placed the tobacco industry under government control for the purpose of earning profits for the public treasury. Some countries following this policy have government operation of the industry, while others "farm" the monopoly privilege out to a private corporation with arrangements for a sharing in the profits. The scheme of government monopoly in this industry is not of recent origin, as France has had some measure of government control for over 250 years.

Control is an essential characteristic of any monopoly. Government tobacco monopolies have been created by specific legislative enactments and the extent of control provided by such measures varies among different countries. Some regulate all phases of the industry, from the growing of the leaf to the sale of the manufactured products; others confine the monopoly to a more restricted field. In countries where tobacco is grown commercially, some supervision over the production of the leaf is regarded necessary in order to restrict production intended for private consumption and contraband sale.

Among the countries having tobacco monopolies are France, Italy, Czechoslovakia, Yugoslavia, Poland, Spain, Japan, Portugal, Turkey and Sweden. The Free City of Danzig also has such a monopoly. The aim in these countries is to obtain as great a revenue as possible from the spread between the price paid for tobacco leaf and that obtained for the manufactured products.

ORGANIZATION OF THE TRADE.

The market for tobacco leaf is characterized by a high degree of concentration of outlets. Beginning with the establishment of the American Tobacco Company in 1890, there was

a marked trend towards combination over a considerable period of time. While this movement has been modified by court action and other influences, most of the tobacco manufacturing activities in this country are in comparatively few hands. The American Tobacco Company was formed by five leading cigarette manufacturing concerns. Cigarettes in 1890 constituted only a minor part of the industry, but the company soon extended its activities so that by the beginning of the present century it was the dominant factor, at least in cigarettes, chewing and smoking tobacco and snuff.

The development of this concentration was feasible because of the nature of the products and their distribution. The manufacture of tobacco products, with the exception of cigars, involves machine production to a high degree and consequently lends itself well to the employment of large-scale methods. Outlets for tobacco are developed by the use of extensive advertising and the establishing of brands and their distribution on a nation-wide basis is facilitated by large business units. A large organization also offers some advantage in the purchase of leaf because of the blends of grades and types employed. Cigars present somewhat of an exception, because hand labor has continued to play such a prominent part in their making that there are a large number of cigar factories in operation.

The progress of concentration under the leadership of the American Tobacco Company and its results were such that in 1907 the question of the status of the combination under the United States anti-trust law was brought before a court. The case was carried thru the courts until in 1911 the United States Supreme Court held that the combination was a monopoly and in restraint of trade, and directed the lower court to work out a satisfactory plan of dissolution. This plan provided for the breaking up of the business among fourteen concerns. The domestic manufacturing of cigarettes, chewing and smoking tobacco, of the combination, was divided among four concerns.[1] Thus, while the extreme concentration existing under the regime

[1] American Tobacco Co.; Ligget and Myers Tobacco Co.; R. J. Reynolds Tobacco Co., and P. Lorillard Co.

of the American Tobacco Company was broken down, concentration still remains to a high degree. This condition, together with the existence of government monopolies and large private concerns in foreign countries means that the grower of tobacco leaf has a very limited number of manufacturers as a market for his product both at home and abroad. This has an important effect upon the market organization for tobacco. It is a situation which is likely to continue because of the advantages of large-scale methods in the manufacture and distribution of tobacco and in the establishment of brands and outlets.

On January 1, 1927, there were 1,423 tobacco factories, 8,427 cigar factories, and 139 cigarette factories.[1] The geographical distribution of the manufacturing industry is shown by the internal revenue collections for various states. Of the total receipts of internal revenue taxes of 376 million dollars during the year ended June 30, 1927, nearly 186 million dollars, or practically fifty percent, came from North Carolina. Virginia was second with about 58 million dollars. New York supplied nearly 27 million dollars, New Jersey about 19 million dollars, Pennsylvania about 18 million dollars, Ohio about 12 million dollars, and Missouri about 10 million dollars. Kentucky's total was a little less than nine million dollars.

North Carolina's leadership is due to the prominent place it occupies in both cigarette and tobacco manufacture. It produced practically 164 million of the total of nearly 278 million dollars collected on small cigarettes, or nearly 60 percent. It supplied nearly 22 million of the total of 65 million dollars collected on tobacco manufactures. Virginia owes its position largely to its cigarette industry, over 53 million dollars coming from that source. New York is important in cigars and cigarettes, while New Jersey's total is made up of cigars, cigarettes and snuff. Pennsylvania is an important cigar state and Missouri is important in tobacco manufacture. A little more than three-fourths of Kentucky's total came from tobacco manufactures.

[1] Annual Report of the Commissioner of Internal Revenue for the Fiscal Year ended June 30, 1927.

The internal revenue records serve to show further the variations in size of plants. Thus, only seven cigarette factories were reported for North Carolina, while New York, with a very much smaller volume of business, had a total of 72. Seventeen tobacco factories were reported for North Carolina, while New York had 328 and Pennsylvania 183. A closer relation between the number of factories and the collections was shown in the case of cigar factories, a further indication of less concentration in that field. New York reported 1,838 cigar factories and Pennsylvania 1,220 factories.

METHODS OF MARKETING.

Tobacco has been a prominent market commodity since the early days of the country. For a considerable period of time it was dependent mainly upon export outlets and because of transportation difficulties its cultivation was restricted to regions which had access to water routes. Growers shipped their tobacco to dealers abroad. As the industry expanded, markets for tobacco were established in this country and gradually domestic manufacture developed so as to take a larger and larger share of the leaf produced.

Tobacco was of such importance among Colonial settlers in Virginia and Maryland that it was the subject of early legislative attention. Governments undertook inspection, sampling and warehousing of tobacco. Virginia established inspection warehouses as early as 1730. Inspection warehouses likewise were established early in Maryland and state controlled and operated warehouses still continue in that State at present. It is interesting to note that some of the early legislative concerns in the marketing of tobacco arose out of overproduction and consequent unsatisfactory prices. Among the regulations imposed were some restricting the sale of inferior leaf, in order to improve the price. Kentucky, while a part of Virginia, was governed by the laws of the latter. When it became a separate state it passed legislation similar to that in Virginia. Thus, Kentucky enacted a law in 1798 providing that tobacco could not be exported until inspected.

The dependence upon water transportation and foreign markets made New Orleans the logical outlet for Kentucky tobacco in the early days. Gradually, however, markets developed in the interior at such points as St. Louis, Clarksville, Nashville, Louisville, and Cincinnati. The war between the States disrupted trade connections with New Orleans and this, together with the development of railroad transportation, caused a shift in the outlets for the Kentucky crop, markets being found at inland points or shipments being made to Atlantic ports.

As long as tobacco was shipped to distant markets, its sale commonly was in hogsheads. However, as tobacco manufacturing within the country developed and markets were established at interior points, buyers began to visit the farms and purchase tobacco in the growers' barns. This shift from making purchases at central markets to barn buying made its effects felt on the receipts at central hogshead markets. The importance of central hogshead markets was further reduced the early part of the present century by the development of cooperative selling organizations among the growers of dark and burley tobacco. The loose-leaf auction method of selling which had been started in Virginia and North Carolina previously, came into the dark districts of Western Kentucky and Tennessee about 1900 and into the burley district about 1905. With the decline of pooling movements in these districts, loose-leaf auctions came rapidly to the front as the important method of marketing. This was especially the case in the burley district. In the dark district, considerable buying at growers' barns continued to be practiced.

The loose-leaf method of selling is familiar to everyone in southern tobacco sections, so no extended discussion of it is needed. Under this system the grower delivers his tobacco at a sales warehouse. These warehouses are built so as to have spacious floor room and ample light, usually provided by means of skylights. The tobacco is unloaded and packed on tray-like baskets, the different grades made by the grower being placed on separate baskets. Each grower's baskets are kept together and are arranged in rows on the warehouse floor, leaving space for the auctioneer and buyers to pass between the rows. During the

sale the auctioneer goes on one side of the row, usually preceded by a representative of the warehouse, who indicates a starting bid on each basket. The buyers on the other side of the row pull out hands of tobacco from the baskets and inspect them as a basis for their bidding. The sale is very rapid, from two to three hundred baskets an hour frequently being sold. The grower has a limited time after the bid has been placed on his basket during which he may reject the offer if he so desires. If he rejects, the tobacco is offered for sale at a later time. If he decides to sell he receives his check from the warehouse for the amount due him and the warehouse makes collections from the buyers.

The growth of loose-leaf selling indicates that it has been found more advantageous than selling to buyers at the growers' barns. There are several reasons for this. The conditions for establishing the grade and quality of the leaf are better in the loose-leaf warehouses. The buyers can purchase the lots which have the particular grades which they require. Sales are expedited. A grower visited by a buyer at his barn may have difficulty in determining whether or not an offer is in line with what his tobacco is worth. The loose-leaf sales give him an opportunity to compare the bids on different lots of tobacco and, in that way, obtain some line on market conditions. When a buyer visits the grower's barn and makes an offer, the latter may hesitate about rejecting it for fear that other buyers may not come. At the loose-leaf sales, several buyers usually are present and they are potential bidders for his crop.

These advantages of loose-leaf selling over selling at the barns do not justify the conclusion that loose-leaf auctions are without disadvantages. The grower still is not in a very effective position to bargain with the buyers. He may reject an unsatisfactory bid, but has no assurance of any better result the next time. The sale is conducted at such a speed that the sizing up of the grade and quality of a particular lot of tobacco often is a matter of snap judgment. Criticisms sometimes have been heard that buyers have shown favoritism to certain growers. The buyers may have their instructions as to the grades they

are to purchase and the prices they may pay for them. Naturally there may be considerable variations at times in the prices of individual baskets of the same grade. It is claimed that on occasion some growers who are in favor with buyers gain advantages at the expense of less fortunate individuals. During the height of the sales season it is not always possible to keep an even flow of tobacco going thru the warehouses, and growers may have to waste time waiting for floor space for their tobacco and awaiting its sale.

Speculative buyers at loose-leaf sales commonly are referred to as "pinhookers." Such speculators buy baskets of tobacco which they hope to resell at a profit. They are sometimes criticised because of a belief that they render no useful service in the market. Speculators often make a profit from buying poorly sorted lots of tobacco and by re-sorting the tobacco are able to sell them at a higher price. Growers who thru carelessness or lack of information as to the grade requirements fail to sort their tobacco properly have no real basis for complaint if a speculator obtains a reasonable return for performing such a service. The presence of the speculator at the sales means added bidding, and this is desirable from the seller's standpoint.

The war period brought rapid increases in the prices of burley tobacco. Some increase also occurred in the prices of dark types, but these were not so marked because of the dependence of the latter upon European outlets which suffered from war interference. The war prices lasted well into the post-war period, the peak in the burley market coming in the sale of the 1919 crop. Growers responded to the high prices by expanding the acreage. The combination of a large crop and uncertain business conditions brought greatly reduced prices for the 1920 crop of burley. A similar situation existed in the flue-cured district. This period of depression brought agitation for a change in the methods of selling because the marketing system generally was blamed for the situation which existed. This crystallized into a movement to organize growers in the various tobacco districts into large-scale cooperative selling organizations having control of sufficient tobacco to make them important factors in

the market.[1] The flue-cured district was the first of the southern districts to launch the campaign for such an organization. The burley district, however, was the first to complete an organization in the form of the Burley Tobacco Growers' Cooperative Association, which commenced operations with the handling of the 1921 crop of its members. The Tobacco Growers' Cooperative Association in the Carolinas and Virginia, frequently referred to as the Tri-State Association, was completed in time to handle the 1922 crop in its territory. The Dark Tobacco Growers' Cooperative Association was organized among the growers of dark types in Western Kentucky and Tennessee in 1922. Tobacco marketing associations had been organized previously or were organized about this time in other districts, including the Maryland Tobacco Growers' Association, the Connecticut Valley Tobacco Growers' Cooperative Association, the Northern Wisconsin Cooperative Tobacco Pool, the Miami Valley Tobacco Growers' Association, and the Central New York Tobacco Growers' Cooperative Association. Thus the cooperative selling movement embraced nearly every tobacco growing district of the country.

Most of these organizations were formed on essentially the same plan. The nonstock, nonprofit plan was adopted. Growers became members of the central organization, signing binding contracts agreeing to deliver to the association all tobacco produced by them for a period of years. A minimum sign-up was specified. In the burley district this was placed at 75 percent. In the flue-cured district the requirement was 50 percent, and in the dark district it was 66 percent. The contracts usually were for five-year periods.[2] The yearly pool was employed, that is, the price received by the grower for a certain grade of tobacco was based on the average price at which all the tobacco of that grade from that crop year was sold. A specified advance according to grade was paid on delivery and additional payments were

[1] See Kentucky Experiment Station Bulletin No. 288, "The Cooperative Marketing of Tobacco," for a more detailed discussion of these organizations.

[2] The burley contract covered the crops of 1922 to 1926, with a proviso that if the required sign-up was secured by November 15, 1921, the crop of that year would also be included. As this was done, the burley contract covered six crops instead of five.

made from time to time as sales were made. Separate warehousing corporations formed with capital stock were organized to provide the necessary warehouse facilities.

These enterprises met with varying degrees of success. Only the ones in Wisconsin, Maryland and New York are in active operation at this writing. The Burley Association operated actively in the handling of its members' tobacco during the period of its contract covering the crops of 1921 to 1926, inclusive. A sign-up to a new contract was started in 1927, but the minimum required to make it effective that year was not obtained and the organization merely operated loose-leaf warehouses. The Dark Association received tobacco from the crops of 1922, 1923 and 1924. In the fall of 1925, the situation was such that widespread contract violation was anticipated and the board of directors gave notice that legal means would not be resorted to in order to force deliveries. This was interpreted generally as a release from the contract and no tobacco from the 1925 crop was received by that association. Unsatisfactory prices resulted in considerable deliveries to the Dark Association from the 1926 crop. A move to sign up growers to a new contract in the fall of 1927, however, did not meet with sufficient response to enable the association to continue receiving tobacco. It still has on hand some tobacco from previous crops (July, 1928). The Tobacco Growers' Cooperative Association of Virginia, North Carolina and South Carolina commenced marketing operations with the receiving of the 1922 crop. Its contract covered the five crops of 1922 to 1926. It received tobacco from the crops of 1922 to 1925, inclusive, but receivers were appointed for it in 1926, so that the activities since then have consisted of winding up the business of previous years. The Miami Valley Tobacco Association handled tobacco from the 1923 and 1924 crops, but suspended operations in 1925. The Connecticut Valley Association operated during the period of its initial contract covering the crops of 1922 to 1926, inclusive. A renewal of the contract was obtained before the first contract expired, but due to dissatisfaction among members it was decided early in 1927 that the renewal of the contract would be cancelled.

The associations in Wisconsin and Maryland have continued their operations. Loose-leaf auctions again have come to the front as the leading method of selling in the Southern producing areas where cooperative marketing has been discontinued. The organizations in the burley and dark districts are still in existence and may be revived if market conditions make the growers feel that such a move is advisable.

TRENDS IN THE INDUSTRY.

Changes in the production, stocks and character of the demand for tobacco products need to be considered by growers and others concerned in the marketing of leaf tobacco because of their influences on the market. The most outstanding development in the market for tobacco products in recent years has been the rapid growth in the demand for cigarettes. Data on the annual production of various tobacco products are available since 1897. Cigarettes at that time were of relatively minor importance, the total production that year being only a little over four and a half billion. Somewhat over 10 billion were produced in 1911. The rapid upward trend started during the early days of the World War. The production in 1915 was nearly 18 billion. The output practically tripled during the next five years and reached 52 billion in 1921. The growth continued so that in 1926 the total was over 92 billion.

The per capita production of cigarettes in 1897 was only 64. In 1910 it was about 95. It practically doubled during the next five-year period, being 181 in 1915. The stimulus of the war period raised it to 500 by 1919, and in 1925 it was 722.

The production of smoking tobacco also has increased materially since 1897, the output doubling during the ten-year period 1897 to 1906. The output in 1897 was 85 million pounds. In 1907 it was 179 million pounds. The high point was reached in 1918 when the total was nearly 258 million pounds. In 1925 it was about 248 million. When account is taken of the growth in population it will be noted that the increase since 1907 has not been great. The per capita production in 1897 was about

1.2 pounds. In 1907 it was about 2 pounds. During the peak year of 1918 it was practically 2.5 pounds, and in 1925 it was about 2.2 pounds.

The case is different when it comes to chewing tobacco, because the demand for this product has shown a marked drop. The production of plug tobacco in 1897 was about 186 million pounds. In only one year since that time has the output been greater than in 1897, that of 1902 being a few thousand pounds greater. The trend has been downward in spite of the growing population, so that the total output in 1925 was only 111 million pounds. The production per capita in 1897 was about 2.5 pounds, while in 1925 it was less than a pound, or only about 40 percent of that in the earlier year.

Table VII shows the amount of leaf tobacco used for various purposes during representative years. It will be noted that cigarettes have risen from an outlet of minor significance to one of considerable importance.

TABLE VII. Leaf Tobacco Used for Various Products.[1]

Year	Total Lbs.	Cigars		Cigarettes		Tobacco and Snuff Lbs.
		Large Lbs.	Small Lbs.	Large Lbs.	Small Lbs.	
1900	379,162,884	102,561,373	2,833,816	33,723	13,050,314	260,683,658
1905	458,507,466	127,101,452	3,449,290	60,452	13,371,341	314,524,931
1910	522,869,679	136,462,219	4,654,241	172,994	31,099,325	350,480,900
1915	551,687,780	141,854,038	4,594,293	92,374	66,699,013	338,448,062
1920	668,835,861	183,042,903	2,552,099	141,318	176,739,478	306,360,063
1925	692,099,176	147,530,760	1,470,374	144,962	244,170,315	298,782,765

[1] Bureau of the Census Bulletin 161. Based on report of the Commissioner of Internal Revenue.

These shifts in consumers' preferences have important bearings on the outlets for leaf tobacco. The increasing prominence of cigarettes has created additional demand for certain types, particularly the flue-cured and certain grades of burley. The dropping off in plug tobacco on the other hand has meant a reduced demand for the types and grades used for this purpose. Burley leaf originally was most in favor for plug tobacco

because its absorptive properties enabled it to take up large quantities of the sweetening materials used in plug manufacture. With the shift in demand away from plug tobacco and towards cigarettes there has been a shift to the use of more burley for the latter purpose.

The dark types of tobacco are concerned more with changes in foreign outlets than with the situation at home. Unfortunately, the records of tobacco exports have been kept by types only for a few years past, so detailed information on trends is not available. Table III above (see p. 246) indicates a reduced export demand for dark-fired tobacco in recent years. This probably is accounted for by the increasing production in other countries and by shifts away from heavier-bodied leaf. The Green River type appears to have maintained its status and some increase in export demand for flue-cured has been apparent.

It is of interest to note the changes which have occurred in the production of the various types and to analyze how well they have been adjusted to changes in demand. Table VIII gives the estimated production of the types grown in Kentucky. These estimates indicate the stimulus to tobacco production resulting from the prices paid for leaf during the war period. This is especially marked in the case of burley. The peak of production of this type as a consequence of the high prices during the war and post-war period came in 1920. The peak for the dark types came in 1919. The slump in the 1921 production is explainable by the very unsatisfactory prices which prevailed during the marketing of the 1920 crop. The recovery in the output of burley during the years 1922 to 1926 was due to the favorable prices ruling during the sale of the 1921 to 1925 crops. The price of the 1926 crop was unsatisfactory and this reduced the crop in 1927. Some recovery in the production of dark types also is noted in 1922 and 1923, but market conditions for these types became unsatisfactory with the result that production again was curtailed.

TABLE VIII. Estimated[1] Production of Various Types of Tobacco. (Expressed in thousands of pounds, i. e., 000 omitted).

	Burley (1000 lbs.)	Clarksville & Hopkinsville (1000 lbs.)	Paducah (1000 lbs.)	One Sucker[2] (1000 lbs.)	Green River[3] (1000 lbs.)	Henderson[3]	
1909	255,439	79,429	56,312	47,221		79,423	
1910	273,900	91,200	74,400	46,250		89,600	
1911	174,800	72,900	60,000	40,980		66,000	
1912	196,080	79,200	62,000	42,840		84,000	
1913	176,776	80,500	58,500	28,248		44,000	
1914	234,664	79,120	54,600	36,864		67,925	
1915	217,338	89,025	67,963	29,952		70,680	
1916	257,050	98,750	78,000	41,760		95,230	
1917	251,520	96,000	94,400	45,000		90,424	
1918	312,000	77,000	76,000	45,000		85,002	
1919	277,650	132,096	101,620	69,824		79,560	
1920	315,259	110,790	69,750	53,727		61,500	
1921	220,849	83,896	49,045	27,630		42,645	
1922	275,601	106,140	75,740	50,422		71,440	
1923	329,504	116,400	82,585	54,114	58,880		14,600
1924	299,200	91,910	64,358	39,123	47,559		14,163
1925	275,146	97,170	57,240	35,534	51,000		13,950
1926	301,015	95,500	33,725	30,754	39,997		9,856
1927	180,659	63,000	18,000	13,056	18,110		4,200

[1] Estimates of the U. S. Department of Agriculture.
[2] The figures for one sucker for 1909 to 1912, inclusive, included "Upper Green River" and "Upper Cumberland."
[3] Green River and Henderson were not reported separately prior to 1923.

A federal law requires quarterly reports of dealers and manufacturers of the amounts of tobacco leaf held by them.[1] The stocks thus reported furnish a basis for judging how well production has been adjusted to market requirements. Table IX gives the total stocks reported on October 1 of each year since 1912 for the types grown in Kentucky. In making comparisons of production and stocks, it should be borne in mind that a large crop one season is reflected in the holdings on October 1 of the year following. The most outstanding feature of these figures is the building up of stocks of burley leaf. It will

[1] These reports are made to the Bureau of the Census, U. S. Department of Commerce. The Act of 1912 required reports for April 1 and October 1. An amendment in 1916 placed the reports on a quarterly basis by adding January 1 and July 1. The reports are made according to types. Some effort has been put forth at recent sessions of Congress to amend the law so as to require that grades as well as types be reported.

TABLE IX. Stocks Reported Held on October 1 by Manufacturers and Dealers.

Year	Burley	Kentucky & Tennessee Dark Fired[1]	One Sucker	Green River	Henderson
1912	215,307,012	91,096,894	22,586,298	42,876,262	1,022,912
1913	225,198,655	111,639,451	31,865,951	50,389,414	7,818,038
1914	203,672,017	141,793,493	27,841,665	48,155,813	1,979,790
1915	249,803,577	149,833,563	22,259,554	45,192,580	2,424,313
1916	199,321,165	122,368,324	16,702,064	34,344,199	4,649,242
1917	207,593,654	128,010,509	18,561,754	49,484,116	16,422,702
1918	190,137,019	197,106,700	35,901,332	59,960,479	22,886,193
1919	229,890,560	141,978,027	32,519,661	40,469,317	7,532,309
1920	267,789,489	179,252,673	44,588,791	47,211,812	12,131,865
1921	324,351,157	155,730,543	47,635,021	45,014,679	7,930,033
1922	280,856,317	130,158,946	36,354,109	39,110,397	3,892,378
1923	342,884,760	140,869,407	33,803,971	52,243,359	3,020,398
1924	428,332,006	143,445,695	41,763,784	54,676,317	3,811,520
1925	459,087,228	151,188,953	42,428,592	51,955,201	5,836,652
1926	466,036,695	169,250,092	49,923,764	51,710,606	7,316,337
1927	451,251,369	161,938,615	41,667,924	48,447,288	7,242,279
1928	347,827,051	114,119,962	26,882,433	40,126,993	4,583,294

[1] Clarksville and Hopkinsville and Paducah.

be noted that the stocks of this type increased somewhat during the years 1919 to 1921 due to the stimulated production in 1918 to 1920. The short crop in 1921 lowered the stocks in 1922, but a steady increase in stocks occurred during the years 1923 to 1926. A slight reduction took place for 1927. The building up of stocks during this period indicates a lack of adjustment between acreage and market requirements. While a comparative increase did not take place in the stocks of dark tobacco, these stocks tended to be maintained or to be increased somewhat in spite of reduced production.

Reports of the Bureau of Internal Revenue show the amounts of leaf going into various products, but this information is not obtained according to types. While exact figures on consumption by types are not available, "disappearance" figures may be obtained by adding to the stocks on October 1 of each year, the estimated production for that year and subtracting from this total the stocks on hand the year following. Table X shows the calculated "disappearance" of various types for

recent years. These figures do not represent the exact consumption of leaf. Inaccuracies in estimates and variations in the proportions of total stocks covered by the reports keep them from being exact. However, they serve as indicators of the consumption and illustrate the trend.

TABLE X. Calculated "Disappearance" of Leaf.

Year Beginning Oct. 1	Burley	Ky. & Tenn. Dark Fired	One Sucker	Green River	Henderson
1919	239,751,071	196,441,354	57,754,870	(1)	(1)
1920	258,697,332	204,062,130	50,680,770	(1)	(1)
1921	264,343,840	158,512,597	38,910,912	(1)	(1)
1922	213,572,557	171,422,539	55,689,138	(1)	(1)
1923	244,056,754	196,408,712	46,154,187	56,447,042	13,808,878
1924	268,444,778	148,524,742	38,458,192	50,280,116	12,137,868
1925	268,196,533	136,348,861	28,038,828	51,244,595	12,425,315
1926	315,800,326	136,536,477	39,009,840	43,260,318	9,975,058
1927	284,083,318	128,818,653	27,841,491	26,430,295	6,858,985

[1] Production not estimated separately.

The average "disappearance" of burley leaf for the period 1919 to 1926 was about 259 million pounds, while the average production was 286 million pounds. The dark-fired likewise shows a larger average production than "disappearance," the former being about 181 million pounds and the latter not quite 169 million pounds. The one sucker type shows some working off of stocks during this period, the disappearance averaging somewhat greater than the average production. Figures for the Green River and Henderson types are available only from 1923 and the average production and disappearance for the years 1923 to 1926 were nearly equal.

What is the explanation of the discrepancy between the production and apparent consumption of burley and dark fired during this period? The explanation in case of burley is found on the production side, the output evidently being expanded more rapidly than demand. In the case of dark fired, the reason is to be found in curtailed demand rather than in over expansion of acreage. As is to be expected in the case of a cash crop

such as tobacco, there is a very evident relationship between prices received by growers one season and the acreage set out the following year. Table XI shows the average prices received by growers for sales thru loose-leaf warehouses in Kentucky. These prices, of course, are averages and are influenced somewhat by variations in quality. They indicate, however, the changes which occurred during the war and the years since. These figures suggest why the burley production was expanded

TABLE XI. Average Prices of Tobacco Sold for Growers, as Reported to Commissioner of Agriculture by Loose-leaf Warehouses in Kentucky.[1]

Crop	Burley	Dark Fired	One Sucker	Green River	Unfired Dark
1916 ..	$17.21	$10.53	$10.60	$11.24	$10.83
1917 ..	26.72	14.17	16.22	19.14	15.22
1918 ..	31.14	14.94	25.99	18.60	15.99
1919 ..	35.35	15.88	14.67	16.20	16.45
1920 ..	13.21	9.27	6.90	7.88	6.54
1921 ..	21.25[2]	14.07	12.63	14.51	14.59
1922 ..	28.28	14.06	12.06	15.83	15.67
1923 ..	21.49	10.81	10.22	10.77	12.17
1924 ..	21.31	12.15	11.39	11.30	11.66
1925 ..	18.73	7.37	8.67	6.87	8.20
1926 ..	13.12	6.55	5.77	7.26	.....
1927 ..	26.27	13.83	10.96	9.06	.....

[1] Data supplied by Commissioner of Agriculture of Kentucky.
[2] Figure corrected by deducting sales reported by Burley Association one month in 1922.

during the war period and also why the expansion was repeated during the period from 1922 to 1926. Export figures by types are not available prior to 1923. The exports of dark fired from Kentucky and Tennessee were about 151 million pounds in 1923, rose to 170 million in 1924, and then fell to 117 million in 1925, not quite 120 million in 1926, and 112 million in 1927.

SOME PROBLEMS IN TOBACCO MARKETING.

The solution of at least part of marketing difficulties must take place on the farms. One situation which has created diffi-

culty in selling tobacco has been the lack of adjustment between production and market requirements. There is place for better planning of the amount of production. Tobacco growers in the past have based their decisions too much upon prices received for the previous crops and too little upon the probable future demand. This has resulted in shifts in and out of tobacco production. Not only does the farmer need to plan on the basis of the amount which the market may be expected to require, but he also needs to note trends in demand. With cigarette consumption increasing and the demand for plug tobacco decreasing, adjustments from the types and grades suited for chewing tobacco to those in demand for cigarettes to meet the change became desirable.

Uniform grades are not in general use in the tobacco market at present. In the absence of uniform grades and large central markets there is no quotation which supplies an accurate guide to market conditions. The average grower is not in a position to judge closely as to whether or not the price offered is in line with the quality of his crop. One of the services rendered by cooperative selling associations is the sale on a grade basis and settlement with the grower on such basis so that he is given direct encouragement to strive for quality and uniformity in growing and handling his crop.

Mention was made above of the high degree of concentration in the outlets for tobacco leaf. One result of this is that as long as the grower follows the plan of individual selling, there are many sellers dealing with relatively few buyers. As far as the general run of growers are concerned, the buyers are in possession of more facts regarding market conditions than they are and have the advantage in bargaining strength on their side. Under these circumstances, growers at various times have launched cooperative sales organizations for the purpose of placing themselves more nearly on an equal plane with the buyer. While these endeavors have met with a variety of discouragements, it is to be expected that growers will renew such efforts in times of unsatisfactory market conditions. The experience gained in the organization and operation of these organizations in the past should be helpful to growers in placing future enterprises in this field on a more permanent footing.